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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/621,687	07/21/2000	Graham Hamilton	06502.0194	4863

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EXAMINER

FLEURANTIN, JEAN B

ART UNIT PAPER NUMBER

2172

DATE MAILED: 09/24/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

TK

Office Action Summary

Application No.

09/621,687

Applicant(s)

HAMILTON, GRAHAM

Examiner

Jean B Fleurantin

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-40 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-40 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on ____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☒ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) ____.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). ____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: .

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DETAILED ACTION

1. Claims 1-40 are presented for examination.

Drawings

2. The drawings filed on 07/21/00 are approved by the Draftsperson under 37 CFR1.84 or 1.152 as indicated in the "Notice of Draftsperson's Patent Drawing Review," PTO-948.

Claim Rejections - 35 U.S.C. § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1, 3-16, 18-23, 26-27, 29-37 and 40 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hembry (US Pat. No. 5,890,160) ("Hembry").

As per claims 1 and 19, Hembry substantially teaches a computer readable medium, operative to serve as a database interface, having instructions which when executed by a computer system, as claimed comprise the following steps of receiving a database call at a computer system (thus, an OO applications program may access the data stored in a relational table by making function calls to the database server of the RDBMS in SQL see figure 2, for example a class might be defined to have behaviors B that: generate appropriate SQL statements; package the statements and forward them to the database server, receive the results, process the results and so on, when such a program is executed client objects C.sub.-- Obj of the foregoing

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class would be constructed as necessary, and their behaviors B invoked in accordance with the particular task; which is equivalent to receiving a database call at a computer system) (see col. 6, lines 16-26);

executing the general computer language programming call to invoke functions of the computer application that correspond to functions specified by the database call (thus, the applications programs may send messages to the database server in a predefined format, such formatted messages may be referred to as database calls, a database call invokes one or more corresponding functions of the database management system usually with respect to a particular database; which is equivalent to executing the general computer language programming call to invoke functions of the computer application that correspond to functions specified by the database call) (see col. 2, lines 40-49). But, Hembry does not explicitly indicate steps of mapping the database call to a general computer language programming call of a computer application. However, Hembry implicitly indicates the steps of an application accesses a cell of a relational table and the cell contains a nontraditional datatype, an EXOB class instance of a matching type is instantiated in the application to represent that data, the EXOB instance will provide a public interface for adding, retrieving, updating and deleting its data to and from the corresponding table location for accessing the object's attributes and for manipulating the data in various type-dependent ways; which is readable as mapping the database call to a general computer language programming call of a computer application (see col. 9, lines 19-27). Thus, it would have been obvious to a person of ordinary skill in the art at the time the invention was

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made to modify the teachings of Hembry with the steps of mapping the database call to a general computer language programming call of a computer application. This modification would allow the teachings of Hembry to improve the accuracy of the database access bridge system and process, and provide a set computer programs that facilitates the creation management and manipulation of databases (see col. 2, lines 22-24).

As per claims 3, 7, 23, 27 and 36, Hembry substantially teaches the medium as claimed wherein the database call is a Structured Query Logic (SQL) call (thus, client objects may be simplified because the OOA has the responsibility for intimate knowledge of the database schema of the precise syntax of SQL calls, which is readable as wherein the database call is a Structured Query Logic (SQL) call) (see col. 7, lines 11-15); and see col. 3, lines 32-36, Hembry further teaches structure for function RDBMS calls is generally referred to as structured query language.

As per claims 4 and 33, Hembry substantially teaches the medium as claimed wherein the computer system is an application server (thus, applications programs communicate with an automated database manager, the database manager may be referred to as a database server, which is equivalent to application server) (see col. 2, lines 40-42).

As per claims 5 and 20, the limitations of claims 5 and 20 are rejected in the analysis of claim 1, and these claims are rejected on that basis.

As per claim 6, Hembry substantially teaches the medium as claimed further comprises generating a database call to a database in response to executing the general computer language

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programming call (thus, generate appropriate SQL statements; package the statements and forward them to the database server receive the results; process the results, and so on when such a program is executed client objects C.sub.-- Obj of the foregoing class would be constructed as necessary and their behaviors B invoked in accordance with the particular task; which is readable as generating a database call to a database in response to executing the general computer language programming call) (see col. 6, lines 20-26).

As per claim 8, Hembry substantially teaches the medium as claimed further comprises validating data operation prior to issuing the SQL call (see col. 3, lines 32-36).

As per claims 9 and 29, in addition to the discussion in claim 1, Hembry further teaches steps of analyzing the components to determine the correspondence between the database elements and the elements of the components that access the database elements (thus, in functioning as an intermediary between applications programs and an relational database management systems, a data access facility may provide one or more classes from which one or more intermediate objects are constructed, objects of an applications program which may be referred to as client objects, may pass messages to the objects of the data access facility; which is readable as analyzing the components to determine the correspondence between the database elements and the elements of the components that access the database elements) (see col. 7, lines 1-6).

As per claims 10, 16, 22 and 40, the limitations of claims 10, 16, 22 and 40 are rejected in the analysis of claim 1, and these claims are rejected on that basis.

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As per claims 11 and 30, Hembry substantially teaches the medium as claimed wherein the computer programming language is object oriented and wherein said components are objects (thus, when object oriented applications access rows of relational tables the data value of the cell is retrieved into an object, the object makes available the value of the nontraditional datatype; which is readable as wherein said components are objects) (see col. 1, lines 26-33).

As per claims 12, 31 and 34, the limitations of claims 12, 31 and 34 are rejected in the analysis of claim 1, and these claims are rejected on that basis.

As per claims 13-15, Hembry substantially teaches the medium as claimed wherein the methods are identified by searching for a method of the form <command prefix>XXX (thus, client objects may be simplified because the OOA has the responsibility for intimate knowledge of the database schema of the precise syntax of SQL calls; which is readable as identified by searching for a method of the form) (see col. 7, lines 11-15).

As per claim 18, Hembry substantially teaches the medium as claimed wherein the database call received at the computer system is a first SQL database call and the column layout specified in the first SQL database call is different than a second SQL database call generated to a SQL database in response to executing the general computer language programming call (thus, an OO applications program may access the data stored in a relational table by making function calls to the database server of the RDBMS in SQL see figure 2, for example a class might be defined to have behaviors B that: generate appropriate SQL statements; package the statements and forward them to the database server, receive the results, process the results and so on, when

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such a program is executed client objects C.sub.-- Obj of the foregoing class would be constructed as necessary, and their behaviors B invoked in accordance with the particular task; which is readable as wherein the database call received at the computer system is a first SQL database call and the column layout specified in the first SQL database call is different than a second SQL database call generated to a SQL database in response to executing the general computer language programming call) (see col. 6, lines 16-26).

As per claim 21, Hembry substantially teaches the medium as claimed wherein said computer application is in a different computer programming language than said general computer programming language (thus, during development and design of applications programs, applications programmers may adhere to a programming methodology a programming methodology is a set of principles by which analysis is performed and by which design decision are made; which is readable as computer application is in a different computer programming language than said general computer programming language) (see col. 4, lines 43-47).

As per claims 26 and 32, in addition to the discussion in claim 1, Hembry teaches step of accessing said database using said selected one (thus, applications programs access the data of relational tables by making calls to a database server, used in this sense, the term 'applications programs' may refer to several separate programs only one program a module of a program or even a particular task of a module; which is equivalent to accessing said database using said selected one) (see col. 4, lines 35-39).

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As per claim 35, the limitations of claims 35 are rejected in the analysis of claim 26, and these claims are rejected on that basis.

As per claim 37, Hembry substantially teaches the system as claimed wherein said first and second database calls specify different column names (thus, when object oriented applications access rows of relational tables, the data value of the cell is retrieved into an object, the object makes available the value of the nontraditional datatype but the manipulation of the value via behaviors or methods of the object is not accommodated; which is readable as second database calls specify different column names) (see col. 1, lines 27-31).

4. Claims 2, 17, 24-25, 28 and 38-39 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hembry (US Pat. No. 5,890,160) in view of Moore et al. (US Pat. No. 6,338,068) ("Hembry"), ("Moore").

As per claims 2, 17, 24-25, 28 and 38-39, Hembry teaches all the subject matter of the claimed invention with the exception of an exact computer language programming call is an Enterprise Java Bean (EJB) call; and computer application is Visual Basic computer application. However, Moore teaches steps of Java Application (see col. 5, lines 11-53). Thus, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to modify the teachings of Hembry and Moore with the steps of computer language programming call is an Enterprise Java Bean (EJB) call; and computer application is Visual Basic computer application. This modification would allow the teachings of Hembry and Moore to provide a method to demonstrate Java-based applications that can demonstrate network connectivity using a browser

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with out the requirement of performing database queries when demonstrating database driven applications (see col. 3, lines 50-53).

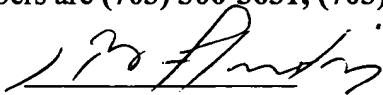
5. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Nykiel et al. US Pat. No. 5,812,849 relates to software development.

Conclusion

6. Any inquiry concerning this communication from examiner should be directed to Jean Bolte Fleurantin at (703) 308-6718. The examiner can normally be reached on Monday through Friday from 7:30 A.M. to 6:00 P.M.

If any attempt to reach the examiner by telephone is unsuccessful, the examiner's supervisor, Mrs. KIM VU can be reached at (703) 305-8449. The FAX phone numbers for the Group 2100 Customer Service Center are: *After Final* (703) 746-7238, *Official* (703) 746-7239, and *Non-Official* (703) 746-7240. NOTE: Documents transmitted by facsimile will be entered as official documents on the file wrapper unless clearly marked "***DRAFT***".

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Group 2100 Customer Service Center receptionist whose telephone numbers are (703) 306-5631, (703) 306-5632, (703) 306-5633.



Jean Bolte Fleurantin

September 21, 2002

JBF/



**SHAHID AL ALAM
PATENT EXAMINER**